

## A Water Conservation Message

**Julia J. Hunt, P.E.**  
Arlington Water Utilities Director

During the past year, North Texas has experienced one of the driest years on record. Our ability to meet future water demands for a growing population includes water conservation and water reuse measures. In addition, there are significant water supply expansion projects under way that directly benefit water supply availability to Arlington residents.

Tarrant Regional Water District (TRWD), our raw water supplier, and the City of Dallas Water Utilities (DWU) have partnered to finance, plan, design, construct and operate the Integrated Pipeline (IPL) Project. The IPL Project is an integrated water delivery transmission system connecting Lake Palestine to Lake Benbrook with connections to Cedar Creek and Richland-Chambers Reservoirs, incorporating TRWD's existing pipelines and creating flexibility in delivery as well as quick response to fluctuating customer water demands.

Since most of our water supply in Arlington comes from Richland-Chambers and Cedar Creek reservoirs, this project helps deliver our water supply needs.

In addition to this major initiative to enhance future water supply, we can extend our current supply by practicing good water conservation measures. Arlington Water Utilities department is leading by example by implementing a leak detection technology that will enhance our ability to detect some water leaks before they become water main breaks.

Our customers can also help save water by identifying and fixing water leaks and practicing efficient irrigation techniques. These are two important conservation practices that can save a significant amount of water.

- Leaks can account for, on average, 10,000 gallons of water wasted in the home every year.
- A leaky faucet that drips at the rate of one drip per second can waste more than 3,000 gallons per year.
- Constantly running toilets can potentially waste 200 gallons of water or more every day.

To check for leaks, survey areas inside and outside such as faucets, toilets, showerheads, garden hoses, and irrigation systems.

**Reporting Leaks/Water Main Breaks:** Leaks seen bubbling up through the pavement or running down streets can be reported 24 hours a day, seven days a week at 817-459-5900.

**Efficient Irrigation:** Remember that **Six to Ten, Watering Wins**. Water the lawn after 6 p.m. and before 10 a.m. to avoid losing 50% or more of your water to evaporation. **Reduce your outdoor watering** to once every 4-7 days. Install a rain/freeze sensor to avoid irrigating during the rain or freezing weather. Utilize drip irrigation where possible in order to avoid water loss to evaporation.

**Efficient Landscaping:** Texas SmartScape® gardening involves selecting native and drought tolerant plants. Visit [txsmartscape.com](http://txsmartscape.com) to learn more about drought tolerant plants. View Arlington's SmartScape® gardens online here: [www.arlingtontx.gov/parks/simple/forestry\\_gardens.html](http://www.arlingtontx.gov/parks/simple/forestry_gardens.html). Visit [www.SaveArlingtonWater.com](http://www.SaveArlingtonWater.com) for more conservation tips.

In summary, Arlington Water Utilities will continue its efforts to provide reliable, high quality water to our customers and we hope you join us in using it as efficiently as possible.



## For more information:

**Water Quality:** ..... 817-575-8984  
Laboratory Services water sample requests, water quality questions or water quality problems. If you have questions concerning this brochure, ask for the laboratory.

**Customer Services:** ..... 817-275-5931  
Open new or transfer account, billing inquiries, water conservation, water and sewer rates.

**Emergency Water, and Sewer Services (24 hours):** ..... 817-459-5900  
Service interruptions, water leaks, sewer problems

**Tarrant Regional Water District (TRWD):** ..... 817-237-8585  
**Texas Commission on Environmental Quality (TCEQ):** ..... 512-239-1000

### To participate in decisions concerning water:

Attend the Arlington City Council meetings, held on the 2<sup>nd</sup> and 4<sup>th</sup> Tuesday nights at 6:30 p.m. in the Council Chamber located at City Hall, 101 West Abram Street.

Meeting schedule is posted online at  
[www.ArlingtonTX.gov/citycouncil/meeting\\_schedule.html](http://www.ArlingtonTX.gov/citycouncil/meeting_schedule.html)

To view City Council Agenda or to watch a City Council meeting webcast, please visit  
[www.ArlingtonTX.gov/citycouncil/agenda.html](http://www.ArlingtonTX.gov/citycouncil/agenda.html)

**Visit our website at:**  
[www.ArlingtonTX.gov/water/studiesandreports\\_drinkingwaterquality.html](http://www.ArlingtonTX.gov/water/studiesandreports_drinkingwaterquality.html)

Published May 2012

# Arlington Water Utilities



# 2011 Water Quality Report



Arlington Water Utilities has a rated capacity of 200 M.G.D. to meet water demand

As you read through this report, you will notice that drinking water produced by Arlington Water Utilities meets or exceeds all Federal and State drinking water quality regulations. In most instances, substances found in Arlington water are well below the maximum allowable levels. The information included in this report reflects the data collected from January 1 through December 31, 2011, unless noted otherwise.

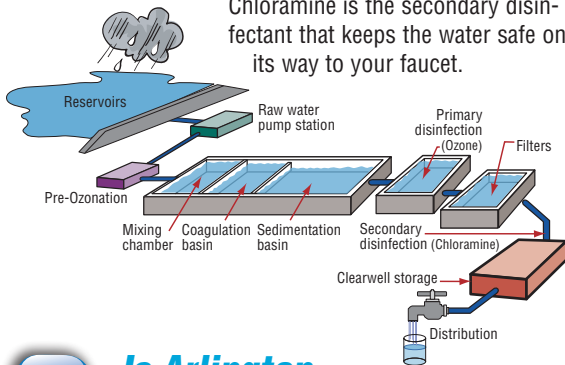
Este reporte incluye información importante sobre el agua potable y también está disponible en esta dirección de internet [www.ArlingtonTX.gov/water/studiesandreports\\_drinkingwaterquality.html](http://www.ArlingtonTX.gov/water/studiesandreports_drinkingwaterquality.html).



## How is the water in Arlington treated?

The water in Arlington is treated at two state of the art water treatment plants. Ozone is used as the primary disinfectant. Aluminum sulfate and a cationic polymer are added to help dirt and other particles clump together and settle out during treatment. The water is then filtered through granular activated carbon beds to remove smaller particles and substances that are dissolved in the water. The water is then chloraminated (treated with chlorine and then ammonia) as it enters the clearwell for storage.

Chloramine is the secondary disinfectant that keeps the water safe on its way to your faucet.



## Is Arlington water safe to drink?

Absolutely. Again in 2011, no water quality regulations were violated and in most instances substances found in Arlington water are well below the maximum allowable levels. Our employees take great pride in producing and delivering to you, our customer, water that meets all Federal and State regulations.

## Where does Arlington drinking water come from?

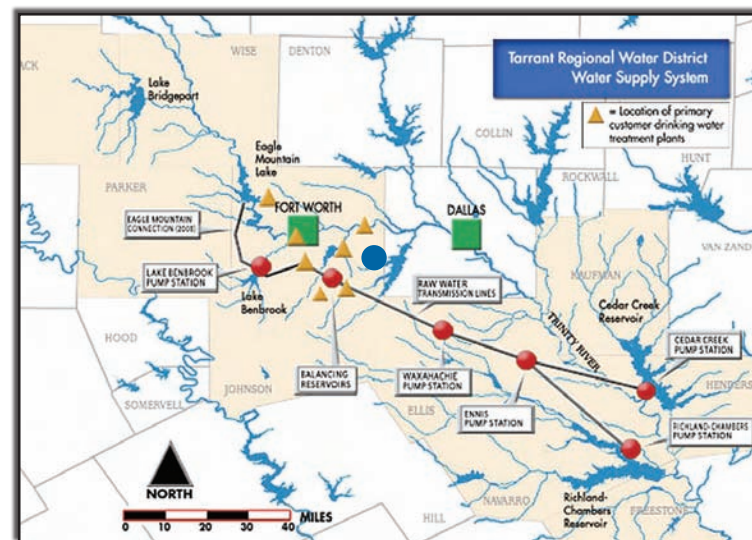
Arlington purchases its water for treatment from the Tarrant Regional Water District. The water is taken from four reservoirs. Cedar Creek, Richland-Chambers and Lake Benbrook supply the John F. Kubala Water Treatment Plant. Lake Arlington supplies the Pierce-Burch Water Treatment Plant.

### Cryptosporidium Monitoring Information:

In 2011 Tarrant Regional Water District monitored all raw water sources for Cryptosporidium and found none in the source waters servicing Arlington.

Cryptosporidium is a microscopic, disease-causing parasite, housed in a hard-shelled egg-shaped oocyst. When ingested, the oocyst splits open, releasing sporozoites. These sporozoites invade the lining of the gastrointestinal tract and can cause an illness called cryptosporidiosis. Cryptosporidiosis is typically an acute short-term infection but can become severe and non-resolving in children and immuno-compromised individuals.

In addition to coagulation and filtration, Arlington uses Ozone (the primary disinfectant) to further protect against Cryptosporidium.



## Did You Know...



### Health information for Special Populations

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immuno-compromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).



### Arlington named Best Tasting Water in Texas

In 2011 Arlington tap water received two prestigious awards for having the best tasting water. Competing with utilities from all across Texas, Arlington water was proclaimed to be the Best Tasting Water in Texas by the Texas section of the American Water Works Association. In addition to that honor, Arlington Water Utilities also won the best tasting water contest hosted by the North Central Texas Region of the Texas Water Utilities Association. These competitions rate entries based on their color, clarity, taste and odor.



### General information about lead

Where does lead in drinking water come from?

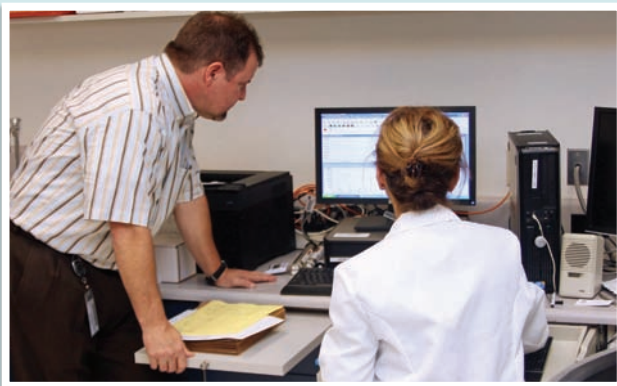
If present, lead is introduced into your drinking water from plumbing fixtures and materials, not from the water source. Although lead was banned from use in pipe and solder in 1986, older homes may still have materials containing lead. To prevent leaching of lead from the plumbing, Arlington Water Utilities controls the water pH so that it coats the interior of the pipes with a thin layer of calcium carbonate. An easy way to minimize exposure to lead in your home if the water has been sitting in the plumbing for more than six hours: flush the faucet until the water becomes cold (approx. 30 seconds-2 minutes). It is highly recommended that only cold water be used for drinking or cooking purposes. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

### Water Fact:

Of all the earth's water, 97% is salt water found in oceans and seas. Only 1% of the earth's water is available for drinking water. 2% is currently frozen.

### Water Fact

You can survive about a month without food, but only 5 to 7 days without water.



## Substances Expected to be in Drinking Water

The City of Arlington and the State of Texas both analyze your drinking water. Any regulated substances that were detected during the last year are shown in Table A. As shown in the table, all are well below the established maximum contaminant levels. All water dissolves substances from the ground as it flows over and through it. Substances that may be present in raw water include such things as:

- 1) microbes such as viruses and bacteria that come from septic systems, agricultural livestock operations and wildlife;
- 2) salts and metals that can be naturally occurring or the result of urban storm water runoff, industrial or domestic wastewater discharges or farming;
- 3) pesticides and herbicides that may come from a variety of sources such as agriculture, urban storm water runoff or residential uses;
- 4) organic chemical substances that include synthetic and volatile organic chemicals that are by-products of industrial processes and can also come from gas stations and urban storm water runoff;
- 5) radioactive substances that are naturally occurring.

Substances may be found in drinking water that may cause taste, color, or odor problems but are not necessarily causes for health concerns. For more information, please call Laboratory Services at 817-575-8984.

### Water Fact:

A leaky faucet that drips at the rate of one drip per second can waste more than 3000 gallons per year.

### Water Fact:

Each person uses about 100 gallons of water a day at home.



## Just try living without it.

SAVE WATER. Nothing can replace it.

Visit [www.SaveArlingtonWater.com](http://www.SaveArlingtonWater.com). Learn how to do your part in saving our most precious resource – water.

## Emerging Water Quality Issues

Arlington Water Utilities' primary objective is the protection of public health through the delivery of high-quality drinking water.

EPA has a drinking water standard of 0.1 ppm for total chromium, which includes chromium-6. This standard is based on the best available science. EPA regularly re-evaluates drinking water standards and, based on new science on chromium-6, had begun a comprehensive review of its health effects in 2008. In September 2010 the EPA released a draft of the assessment for public comment. The EPA expects to finalize the health risk assessment and make a final determination about the carcinogenicity of chromium-6. In 2011 total chromium was not detected in Arlington drinking water which would also indicate that hexavalent chromium was not present at a detectable level.

### Water Fact:

The average five-minute shower takes between 15 to 25 gallons of water.

## The Environmental Protection Agency (EPA) Safe Drinking Water Hotline

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some constituents. The presence of these constituents does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, the EPA prescribes

regulations that limit the amount of certain substances in water provided by public water systems. The treatment process removes these substances from the raw water and provides further protection prior to sending it to the distribution system. More information about contaminants and potential health effects

can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 800-426-4791 or visiting the EPA web site at [www.epa.gov/safewater](http://www.epa.gov/safewater).



**Table A. Regulated Substances.** These substances are regulated or are required to be monitored and were detected in Arlington tap water in 2011. None of the detected substances exceeded the regulated limits.

Substance	Units	Avg.	Min.	Max.	MCL	MCLG	Possible Source
Atrazine	ppb	0.10	0.10	0.10	3		Runoff from herbicide used on row crops
Barium (2011)	ppm	0.050	0.044	0.055	2	2	Erosion of natural deposits
Bromate <sup>a</sup>	ppb	<5	<5	<5	10	10	Byproduct of drinking water disinfection
Chloramines <sup>a</sup>	ppm	3.6	0.3	4.9	MRDL=4	MRDLG=4	Water additive used to control microbes
Fluoride	ppm	0.47	0.22	0.66	4	4	Water additive promoting strong teeth
Nitrate as Nitrogen	ppm	0.300	0.159	0.490	10	10	Runoff from fertilizers
Nitrite as Nitrogen	ppm	0.047	0.001	0.224	1	1	Runoff from fertilizers
Radioactive (2011)							
Radium 228	pCi/L	<1.0	<1.0	<1.0	5	NA	Decay of natural, man-made deposits
Beta/Photon Emitters	pCi/L	<4.0	<4.0	<4.0	50	NA	Decay of natural, man-made deposits
Gross Alpha Particle Activity	pCi/L	<2.0	<2.0	<2.0	15	NA	Decay of natural, man-made deposits
Total Coliform <sup>a</sup>	%	NA	ND	0.54%	5% **	NA	Naturally present in the environment
Total Organic Carbon (TOC)							Naturally present in the environment
PB Plant (raw)	ppm	5.4	4.2	9.4			
PB Plant (drinking)	ppm	3.1	2.4	3.9			(PB = Pierce-Burch Plant)
PB Removal ratio <sup>a</sup>	remov. ratio	1.2	1.0	1.8			
JK Plant (raw)	ppm	5.0	3.9	6.1			(JK = John F. Kubala Plant)
JK Plant (drinking)	ppm	2.8	2.4	3.2			
JK Removal ratio <sup>a</sup>	remov. ratio	1.3	1.0	1.4			
Total Trihalomethanes <sup>a</sup>	ppb	13.9	12.6	15.7	80	NA	By-product of drinking water chlorination
Trihaloacetic Acids (HAA5) <sup>a</sup>	ppb	5.8	5.2	6.4	60	NA	By-product of drinking water chlorination
Turbidity <sup>a</sup>							Soil runoff
Highest single measurement	NTU	0.09	ND	0.42	TT=1.0	0	
% of samples < 0.3 NTU	%	99.8%	NA	NA	TT=95%	NA	
Substance	Units	Action Level	No. Sites > Action Level	90th %-tile	Range	Possible Source	
Copper (2009) <sup>1</sup>	ppm	1.3	0	0.056	0.0052-0.93	Corrosion of household plumbing systems	
Lead (2009) <sup>1</sup>	ppb	15	0	0.55	ND-0.85	Corrosion of household plumbing systems	

<sup>1</sup>Instead of MCLs for lead and copper, EPA requires that 90 percent of water samples obtained from customers' taps contain less than the Action Level for each metal. Arlington's most recent survey of the required 50 homes shows no home exceeded the action level. Sampling is required every 3 years. Due for testing in 2012. <sup>2</sup>Compliance is based on a calculated running annual average of all samples at all sites. <sup>3</sup>Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. <sup>4</sup>Coliform bacteria are used as indicators of microbial contamination of drinking water because they are easily detected and found in the digestive tract of warm blooded animals. While not themselves disease producers, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms. Therefore their absence from water is a good indication that the water is bacteriologically safe for human consumption. <sup>5</sup>Presence of coliform bacteria in 5% or more of the monthly samples. <sup>6</sup>Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed. Based on running annual average of ratios. TCEQ requires a removal ratio of ≥1.0. <sup>7</sup>Compliance is based on a calculated running annual average of the quarterly averages



## Table Definitions

**Action Level (AL)** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

<(xxxx) less than the amount listed.

≥(xxx) equal to or greater than the amount listed.

**Maximum Contaminant Level Goal (MCLG)** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level (MCL)** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Residual Disinfectant Level Goal (MRDLG)** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**Maximum Residual Disinfectant Level (MRDL)** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**NA** Not applicable

**ND (Not detected)** No level of the parameter was detected.

**NTU (Nephelometric Turbidity Units)** A unit used when measuring turbidity, a measure of the cloudiness of the water.

**pCi/L (picocuries per Liter)** A measure of radioactivity in the water.

**ppb (parts per billion, ug/L)** A unit of measurement roughly equal to 1 drop in 100,000 gallons.

**ppm (parts per million, mg/L)** A unit of measurement roughly equal to 1 drop in 100 gallons.

**TT (Treatment Technique)** A required process intended to reduce the level of a contaminant in drinking water.

**Water Fact**  
You can refill an 8 oz. glass of water approx. 15,000 times for the same cost as a six pack of soda pop.



## Other Substances of Interest

Substance	Units	Avg	Min	Max
<b>Total:</b>				
Alkalinity	ppm	93	79	133
Hardness	ppm	103	68	137
Hardness	grains/gal.	6.0	4.0	8.0
<b>Calcium</b>	ppm	36	26	53
<b>Sodium</b>	ppm	17	11	24
<b>Magnesium</b>	ppm	3.5	3.2	3.7
<b>Chloride</b>	ppm	16	11	22
<b>pH</b>	units	8.1	7.3	8.4



**Table B. Unregulated Substances.** These substances don't yet have a drinking water standard set by the USEPA. The purpose of monitoring for them is to help EPA decide whether the substances should have a standard.

Substance	Units	Avg.	Min.	Max.	MCL	Possible Source
<b>Chloroform</b>	ppb	3.9	3.2	4.5	Not Regulated	{ By-product of drinking water disinfection; not regulated individually; included in Total Trihalomethanes.
<b>Bromodichloromethane</b>	ppb	4.6	4.3	5.1	Not Regulated	
<b>Chlorodibromomethane</b>	ppb	4.4	4.1	5	Not Regulated	
<b>Bromoform</b>	ppb	1	1	1.2	Not Regulated	
<b>Dichloroacetic Acid</b>	ppb	3.84	3.56	4.16	Not Regulated	{ By-product of drinking water disinfection; not regulated individually; included in Haloacetic Acids.
<b>Bromoacetic Acid</b>	ppb	0.65	0.36	0.88	Not Regulated	
<b>Dibromoacetic Acid</b>	ppb	1.25	0.79	1.6	Not Regulated	
<b>Chloroacetic Acid</b>	ppb	0.06	NDB	0.25	Not Regulated	
<b>Trichloroacetic Acid</b>	ppb	ND	ND	ND	Not Regulated	